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The Impact of Social Comparisons on Nonprofit Fundraising

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Why individuals make charitable contributions and voluntarily provide public goods is an important question in modern society. Extensive research on voluntary contributions has been conducted by economists (Davis & Holt, 1993; Ledyard, 1995) and psychologists (Dawes, 1980).

Many theories have been proposed to explain why individuals give (or cooperate) when it is in their own (financial) interest to free or cheap-ride. Explanations include altruism (e.g. Becker, 1974; Andreoni, 1988), warm-glow and warm-glow altruism (e.g. Andreoni, 1989, 1990), conditional cooperation (e.g. Fischbacher, Gachter, and Fehr, 2001), and reciprocity (e.g. Sugden, 1984). These motivations have been studied using experimental data from the lab and naturally-occurring (empirical) data.

Only very recently, field experiments have been introduced as a research tool in studying public goods provision and charitable contributions in economics (e.g. List & Lucking-Reiley, 2002; Eckel & Grossman, 2003, and other articles in this volume).[1] List and Lucking-Reiley study the effect of seed money and refunds in a university fund raising campaign. They find that increasing the proportion of seed money increases both

[1]Research in psychology and marketing has used field experiments in studying charitable giving (for a review, see Weyant, 1996). Influence techniques studied include foot-in-the-door, door-in-the-face, low-ball, and legitimization-of-small-donation. The results, however, are mixed; some research shows positive effects (e.g. Brockner, Guzzi, Kane, Levin & Shaplen, 1984), while others show no effects (e.g. Fraser, Hite & Sauer, 1988).

participation rates and the average amount of contribution while instituting a refund only increases the average amount of contribution, but not the participation rate. Eckel and Grossman study the effect of rebates as compared with matching in a public radio fundraising campaign via mail. They find that matching and rebates solicit about the same number of contributions, but that matching generates higher average amounts contributed. Note that both of these two experiments manipulate the payoff structure faced by individual donors.

Instead of manipulating the payoff structure our research introduces a new factor that influences contribution behavior: *social comparisons*. While previous research has suggested that social comparisons can have negative consequences for efficiency and social welfare, for example, by leading individuals to overconsume (e.g. Frank 1999, 1985), this project identifies a positive impact of social comparisons; it can be used to enhance contributions to public goods.

In this article, we summarize our findings from three working papers, and report the results of a new field experiment in which social comparisons are manipulated and shown to increase average individual contribution in the field. Our setting is a fundraising campaign for a public radio station.

We begin by introducing the concept of social comparisons and discussing how they might influence charitable giving. In the second section, we describe our previous research and its results. Section 3 descries the new field experiment and its results. We conclude with a brief summary describing our results, their implications for understanding charitable contributions, and their applications for non-profit organizations more broadly.

Social Comparisons

Social comparisons were first studied by Festinger (1954). His original proposal was that people use three distinct processes to form an accurate view of themselves.[2] The first process involves using objective standards to evaluate their actions. For example, when I need to decide how much I should contribute to a local public radio station, I can listen to the on-air fundraising campaigns, and might donate the station-recommended amount. Second, people compare themselves to similar others, especially when an objective standard is not available or is not perceived as relevant. For example, I might believe that the station-recommend amounts are not objective (since they come from an interested party), so instead I might ask my friends how much they contributed and use that information to evaluate my own potential contribution levels. Third, people compare themselves not with similar others (others in their own position) but with individuals who have similar attributes. For example, if none of my friends contribute to the same station as I do, I might compare my contribution with other donors' contribution to judge the appropriateness of my actions.

The social comparisons studied in our research refer primarily to the third, more socially-oriented comparison processes in Festinger's initial proposal. That is, we will use social comparisons to refer to the process whereby people compare themselves to others who share attributes with themselves. In a nonprofit fundraising context, this means that individuals compare themselves with other donors to the same nonprofit.

Festinger's initial proposal later developed into a large stream of research on what kinds of social comparisons people seek in order to feel good about themselves (to

[2] Later this theory was extended into using social information to form an accurate view of the world outside of oneself (Suls, 2000).

achieve high self-evaluation or to accomplish self-enhancement, e.g. Taylor & Lobel, 1989). In contrast, our research does not examine the cause of social comparisons, nor are we interested in how people evaluate themselves. Rather, we are interested in how social comparisons influence contribution behavior. Our participants do not choose with whom they wish to compare themselves; they only decide what to do in response to social comparison information that we provide. We manipulate this information, and examine the consequences of this manipulation on individuals' behavior.

In this study, we communicate to contributors how much a previous donor had contributed in the social comparison conditions, while they get no such information in the control condition. We then look at the impact of this social comparison information on contribution behavior.

Social Comparisons in Nonprofit Fundraising

In this research, we wanted to demonstrate the impact of social comparisons in public goods settings in a field setting. A related question has been studied in the lab using a dictator game (Cason & Mui 1998). Subjects made two $40 dictator game decisions, one before and one after they learned the decision of another subject (or, in the control condition, another subject's birthday). Overall participants become more self-regarding in the second decision, although this effect is significant in the control condition and insignificant in the experimental condition. Thus they conclude that social comparison information can increase contributions, or at least retard the natural decrease of contributions. In our field study, we provide information on another (generous) donor and examine the impact of that information on the target donor's decision.

Only one very recent study has examined social comparisons in the field. Frey and

Meier (2004) use a mail fundraising campaign run by the university. Some students receive a letter telling them that 64% of other students had previously contributed (this represents the number who actually contributed in the last year). Other students receive a letter telling them that 46% of other students had previously contributed (this represents the number who actually contributed over the last 10 years). Seventy-seven percent of students in the 64% treatment (high social comparison) contribute to the fund, while 74.7% of students in the 46% treatment (low social comparison) contribute. A more complicated logit model including controls for previous contribution history of each student finds a statistical difference between the two treatments. While this paper examines the impact of social comparisons on *participation rate*, we will study the impact of social comparisons on *contribution amount*.

We sought a naturally-occurring institution that captured the public good structure, where each individual has an incentive to free ride, but where the group as a whole is better off when everyone contributes. We identified public radio as one such setting. Each individual has an incentive to free ride, listen to the station, and not contribute to its continued functioning. However, the community as a whole is better off when the community is funded. This field setting offers us the potential to offer social comparison information to contributors in a natural way.

We collaborated with a public radio station to implement this experiment. This station has three on-air fund drives per year. During the drive listeners call into the station to make contributions. There are many recommended contribution levels being discussed on the air, $50 is required to become a basic member, listeners who give $60 and $75 receive additional gifts. Other gift levels kick in at $120, $180, $240, $360,

$600, $840, $1000 and $2500. Because there are so many levels, Festinger's first category of objective comparison information is not salient in this situation.

Second, the listeners are geographically and socially distant. Thus, we hypothesize that the second social comparison process is similarly weak. We focus on the third, providing information about another donor's contribution.

Our Previous Work

Three previous papers of ours examine the impact of social comparisons in the field. This section reviews this research, beginning by introducing the experimental design which we use again in collecting the new data provided in the next section.

This research has been conducted in collaboration with a number of public radio stations during their annual on-air fund-drives. During the on-air drive, the station DJs intersperse music with appeals for donations. Listeners respond to the on-air appeals during the drive and call the station to make a pledge. Experimenters answer the phone as volunteers for the station, ask the routine questions for the station and implemented the social comparison manipulation in the appropriate place in the conversation.

In particular, after answering the phone with the station's identifier: "Hello, STATION_NAME member line," experimenters asked: "Are you a new member or a renewing member of STATION-NAME?" After the caller answered, experimenters read (or did not read in the control condition) the social comparison manipulation: "We had another member, they contributed $x." We manipulated both the existence of this manipulation and the amount named. The question asked right after the manipulation was: "How much would you like to pledge today?" The dependent measure, the pledge amount, was then collected. We also ensured that another member had indeed contributed

the amount we suggested earlier in the fund drive, so that our statements would not constitute deception.

Our first paper, Shang and Croson (2004a), we report the results of our first fund drive where we compare the control treatment (no social comparison) to our initial, high, level of social comparison ($300). This paper focuses on the response of new donors to the social comparison manipulation. We chose $300 as an appropriate amount in consultation with the station, and from reading the literature on goal-setting, which suggests that goals representing the 90-95 percentile of responses are most motivating. For this particular station, $300 represents the 94th percentile of contributions by new members.

Our results are encouraging. This high social comparison significantly increased contributions by new members over the control condition (by about $52 or 43%). We thus demonstrate the impact of social comparisons on public goods provision in the field setting.

This paper goes on to further develop the argument that the process underlying the increased contribution is indeed social comparisons and not some other process. A second experiment shows that when the donor and the social comparison target are of the same gender (more similar) the effect is larger than when they are of different genders (less similar).

Our second paper, Shang and Croson (2004b) extends our findings from the first by looking at new and renewing members' contributions. We explore additional social comparison levels; $75 and $180 (50th percentile and 80th percentile respectively). In addition we collect other information on these donors, and thus can control for income

(via zip code) and a variety of other socioeconomic factors. We show that while social comparisons directly affect new members' contributions (as shown in Shang and Croson 2004a), they do not seem to affect renewing members' contributions to the same degree.

This paper also collects and analyzes "followup" data; that is, the contributions of the participants in our experiment one year later. One might imagine a series of competing ex-ante hypotheses about the long-term effects of a social comparison manipulation like this. One possibility, based on cognitive dissonance, is that once an individual gives more because of this manipulation they will continue to give more. A second, based on crowding out, is that after giving more this year they will be less likely to contribute in a subsequent year, or will contribute less. Finally, one might imagine that one year later donors simply revert to the behavior that they would have exhibited without the manipulation. In fact, this third effect is exactly what is found. One year later there are no significant differences in giving between participants who were in the control treatment and in the social comparison treatments.

Our third paper, Shang and Croson (2004c), focuses on renewing members and attempts to explain their lack of responsiveness found in the previous paper. In addition to the phone data from above, we also collect data from the renewal mail campaign used by the stations. Here we manipulate a sentence on the response sheet where donors record their contributions. This sentence says "STATION_NAME received a contribution [of $x] from a member like you, and we invite you to join this member in renewing your membership today!," where the text in the brackets is included in the experimental conditions but not in the control conditions. Then the pledge amounts were

collected with this sentence right below the manipulation: "Yes! Here is my contribution of _____."

For renewing members we compare not their absolute contribution, but the change in their contribution between this drive and the previous drive as a function of the social comparison condition. In particular, we code for each individual whether they received a social comparison that was higher or lower than what they had contributed the previous year. We find that those who receive an upward social comparison increase their contribution, and those who receive a downward social comparison decrease their contribution. Those in the control condition (and those whose social comparison is the same as their previous contribution) do not significantly change their contribution. Statistical tests confirm that these treatments are significantly different from each other.

Three previous papers of ours demonstrate the impact of social comparisons on voluntary contributions to public goods. Overall we find that social comparisons increase contributions and this effect is stronger when the similarity between the donor and the target is stronger (Shang and Croson 2004a). We find that this effect is significant in new members and not in renewing members, and we observe no long-term reduction (or increase) in contributions one year later (Shang and Croson 2004b). Finally, we find that social comparisons do affect renewing members but not in the way anticipated; instead they adjust their contribution in the direction of the social comparison (Shang and Croson 2004c).

This article presents the results of a new experiment designed to test the limits of social comparisons. Here we examine the effect of extreme social comparisons, choosing levels that are quite high relative to the typical contribution.

A New Field Experiment

This field experiment was conducted with an anonymous public radio station during their February on-air fund drive in 2004. We wanted to test the limits of our findings in Shang and Croson (2004a) by examining the impact of very high social comparison levels. In particular, we compare the control condition from the previous paper with a new one with a social comparison level of $600 (the 97th percentile of contributions). The station was concerned about this high number "scaring off" new contributors, thus we offered it only to renewing members.

Remember that in Shang and Croson (2004a, 2004c) we found that social comparisons at the 95th percentile level did not affect the absolute contributions of renewing members, just their change in contributions. In contrast, here we find that sufficiently high social comparisons do affect the absolute contributions of renewing members.

Method

Design. As in our previous studies, potential donors call to make contributions to the station during the on-air campaign. We provide renewing members with high social comparisons, and examine the impact on their pledges.

Results

Because our previous manipulations had been successful for increasing revenues for the station, they asked that we over-sample the experimental condition. We thus used a ratio of 3:1 in preparing our experimental materials. For every one caller who randomly received the control condition three callers would randomly receive the experimental condition. After preparing the response forms in the appropriate ratio, the

forms were shuffled together to randomize. When the phone rang and the caller answered that they were a renewing member, the research assistant chose the top form from the (face down) pile and read the appropriate sentence. After this randomization, we had 56 callers in our control condition and 140 callers in our experimental condition during this drive. We first compare the amounts contributed directly in Figure 1, below.

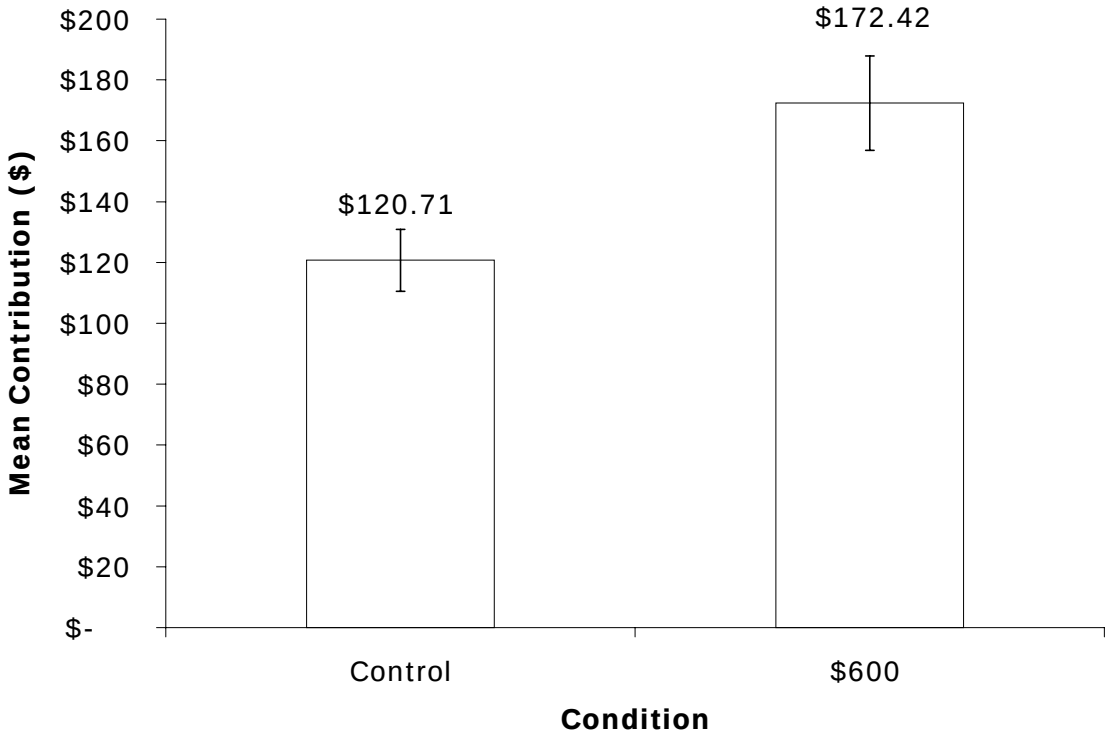

Figure 1: Mean Contribution in Control and $600 Social Comparison Conditions

As can be seen in the figure, the average contribution in the control condition was $121, while the average contribution in the treatment condition was $172. This represents an increase of $52 per caller, about 43% by using a high social comparison number. A t-test finds this difference statistically significant (t=2.036, p=0.022).

For additional control, we also ran an OLS regression on the amounts contributed, including controls for the gender of the caller (previously observed to have some impact)

and the day and hour that the call arrived. This particular station has extremely varied programming, and we wanted to control for the fact that callers who typically listen to music in the morning might be systematically different than callers who typically listen to news at night. Table 1 presents the result of the OLS regression with these additional controls. Our initial result remains statistically significant in the regression format.

	estimate	SE	p
$600 Treat	54.960	27.338	0.046
Male	14.023	24.731	0.571
Day		yes	
Hour		yes	
N	193		
R-Squared	0.074		

Table 1: OLS Regression of Contribution on Treatment and Controls

One final statistic of interest is the distribution of contributions in the two treatments. These distributions are shown in their entirety in Figure 2, below and summarized in Figure 3.

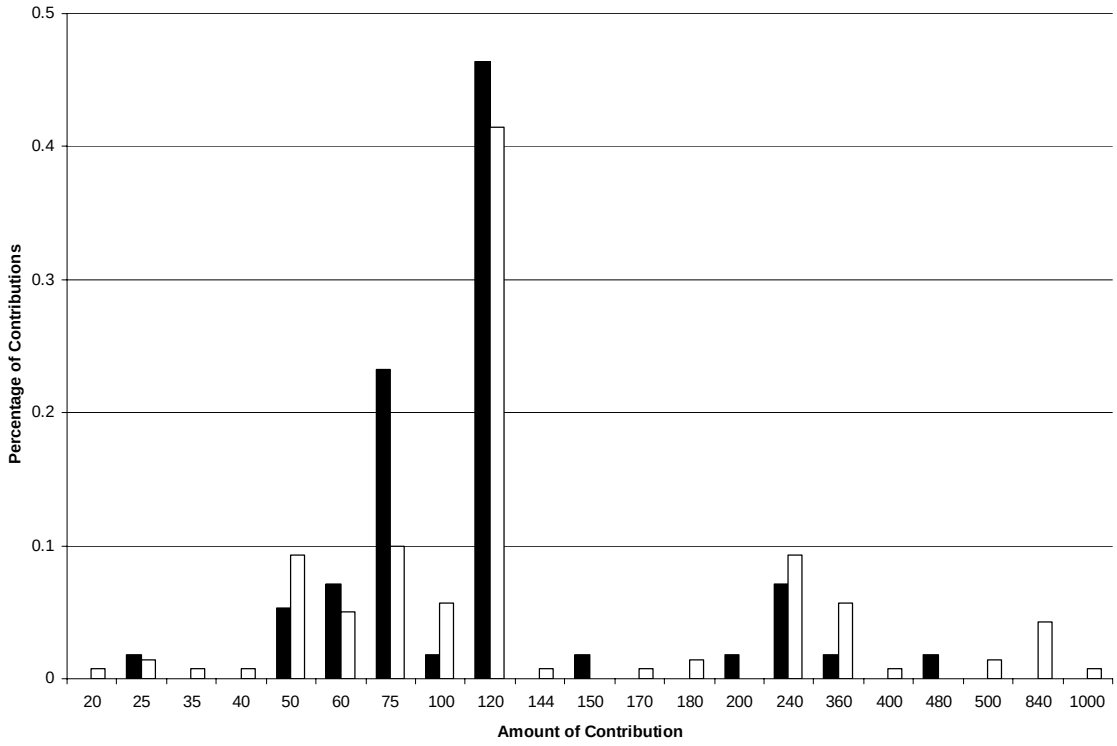

Figure 2: Histogram of Contributions Received

As expected, this distribution has spikes, including a large spike at $120 which represents $10 per month, includes a number of extra gifts and is a large attractor for renewing donors. There are smaller spikes at other gift levels including $75 and $240.

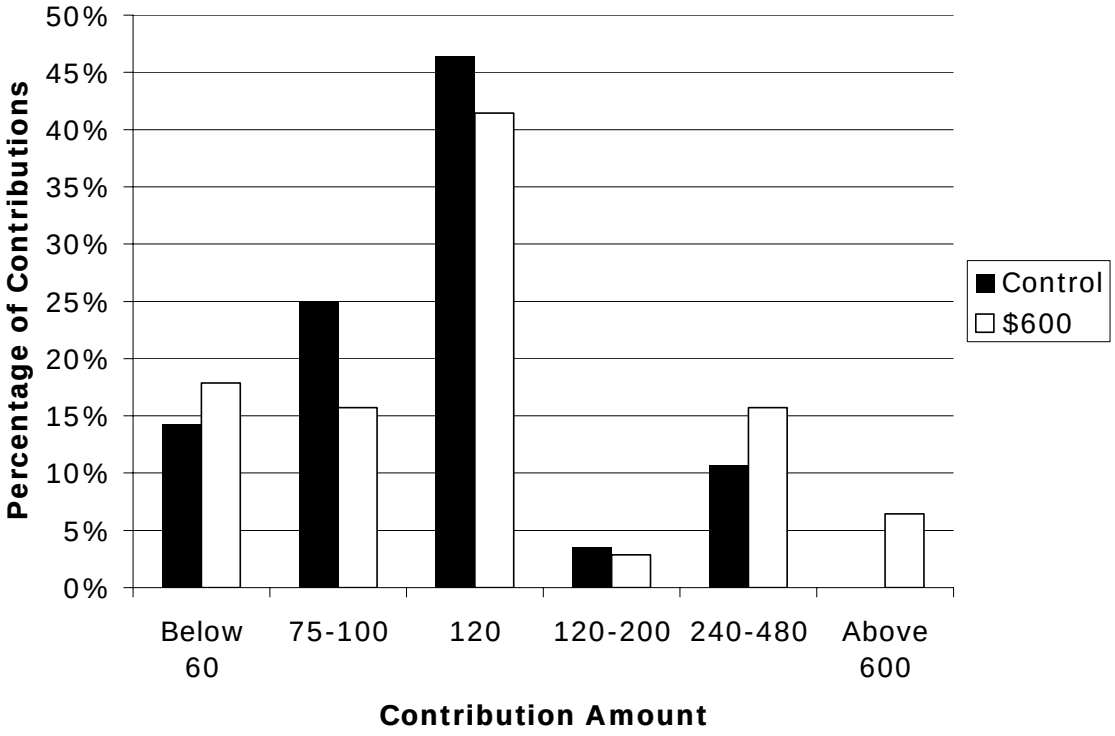

Figure 3: Percentage of Contributions in Two Treatments, Collapsed

Differences between the two treatments are easier to see in Figure 3, above. The first difference is the existence of contributions at or above $600 in the social comparison treatment that are not present in the control treatment. These contributions suggest that some callers are trying to match (or beat) the contributions made by the social comparison target. But of particular interest is the large increase in the percentage of contributions in the $240-$480 range. These seem to be callers who would otherwise have given lower amounts (e.g. $120) and instead are influenced to increase their contribution by the existence of the social comparison target. We believe that this shading is the main source of the impact of social comparisons and provides evidence that social comparisons can impact decisions even when donors don't attempt to match or beat the social comparison level. Instead, the existence of an ambitious social

comparison can make lower-level donors slightly more generous.

Conclusions

Results from this study reinforce those in our previous research; social comparisons impact contributions. In this study presenting target donors with information about a high social comparison significantly increases their own decision. This effect represents a potential increase in revenue of the nonprofit of 43%.

Discussion and Future Research

Field experiments offer a unique opportunity to study the influence of social psychological processes on public goods provision. In our study we were able to remove the upper bound on giving typically imposed by dictator games experimenters in the laboratory and could observe donor behavior in a more natural and realistic setting.

However, field experiments have limitations as well. While one can demonstrate that an effect exists, it is much harder to conclude why the effect exists. We intend to further examine this question in the lab. A second limitation of field experiments involves the generalizability of the results. It is possible that we observed our results due to the choice of this particular nonprofit radio station and this particular experimental implementation, and that they might not be observed elsewhere. For example, this experiment involved existing contributors to the station; would the results generalize to new members? Similarly, this manipulation was done via the phone; would the results generalize to mail or web contributions?

Our related research, however, suggests that the social comparison effect is indeed general. Shang and Croson (2004a) shows the influence of social comparisons on new donors. Shang and Croson (2004b) demonstrates the robustness of this result using

different social comparison levels and finding no long-term reduction in contributions one year later. Shang and Croson (2004c) finds that renewing donors adjust their previous contribution in the direction of the social comparison target.

In summary, this research demonstrates the impact of social comparisons on charitable giving in a field study using a public radio station. Contemporary and future research explores the same effect in different domains, using different members and different social comparison levels. This stream of research more generally provides for a deeper understanding of what motivates individuals to contribute toward the funding of public goods and other charitable organizations.

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